



GC200-D2 单剪线一体式平车说明书

一、安全上的注意事项

使用前请详细阅读本技术资料与所搭配的缝制机械说明书，配合正确使用。

- 1.1 (1)电源电压与工作频率：请遵照马达与控制箱铭牌所标之规格。
(2)电磁波干扰：请远离高频磁波机器或电波发射器等，以免所产生的电磁波干扰本驱动装置因而发生错误动作。
(3)接地：为防止杂讯干扰或漏电事故，请做好接地工程（包括缝纫机、马达、控制箱）。
- 1.2 拆卸马达或控制箱时，勿带电拔插；控制箱里面有危险高压电，所以关闭电源后要等1分钟以上方可打开控制箱盖。
- 1.3 为保证人身安全，请在维修机械或进行穿针作业时关闭电源。
- 1.4  这个标示符号表示机器安装时，如有错误恐会伤害到人体或机器会受到损坏。所以机器方面有危险性的地方会有此标志。
 这个标志符号表示有高压电等，电气方面有危险性的地方会有此标志。
- 1.5 本装置保证在正常工作情况且无人失误的操作下，保修期为一年。

二、操作说明

2.1 恢复出厂设置

在关机状态下，同时按住▲▼键开机，再按S键确认即可恢复。

2.2 监控模式

长按S键进入到监控状态，按▲▼键进行变更监控序号，按S键查看。

2.3 出厂调试模式

长按剪线键进入调试模式，按▲▼键选择调试项目，按S键进入对应模式。

- 1-dJ 电机测试模式，按剪线键开始测试，完成后显示测试结果。
- 2-bJ 手轮位置校准，转手轮到上停针定位位置，运行后再次确认位置。

2.4 老化模式

同时按住P键和S键开机，可直接进入老化P26参数，选择开始老化。

2.5 二级参数模式

按P键开机，直接进入二级参数模式，可查看P21-P40参数。

长按P键，输入密码111，也可进入二级参数模式。

2.6 三级参数模式

长按P键，输入密码824，进入三级参数模式，可查看P41-P60参数。

三、监控模式

显示序号	项目名称	单位	显示序号	项目名称	单位
JJ	计件	件	PoS	角度	度
SPd	速度	RPM	dJ	电机	/
CUr	电流	0.1A	id	机型	/
UdC	电压	V	vEr	版本	/
PdL	踏板	/			

注：在计件数显示界面长按剪线键可复位计件数。

四、按键说明

功能参数编辑键		进入或退出功能参数的编辑。
参数查看保存键		对所选参数号内容进行查看和保存；选择好参数号后按此键可以进行查看和修改操作，修改参数值后按此键则退出并保存参数
上选择键		1、参数选择区内参数项递增键 2、参数内容区内设定数值递增键
下选择键		1、参数选择区内参数项递减键 2、参数内容区内设定数值递减键
慢速起缝键		设定使用或取消慢速起缝功能。
剪线选择键		设定使用或取消剪线功能。
停针位选择键		切换缝制后机针的停止位置（上停针位/下停针位）。

五、电控接口定义



定义	信号（衣车灯）	地线（点动补针）	32V(电磁铁)
脚位	6PIN	5PIN	4PIN
定义	5V（衣车灯）	信号（点动补针）	剪线（电磁铁）
脚位	3PIN	2PIN	1PIN

六、故障说明

错误码	故障内容	故障原因	检查项目、处理
E-01	系统电压过高	实际电压偏高 电压检测有误	系统进线电压是否过高 系统电压检测回路是否工作正常
E-02	系统电压过低	实际电压偏低 电压检测有误	系统进线电压是否过低 系统电压检测回路是否工作正常
E-05	踏板 ID 故障	踏板辨识故障	踏板接头松动
E-07 E-08	电机超负荷	电机堵转 电机超负荷	电机插头是否接触良好 机头或剪线机构是否卡死 是否缝制规格厚度以上布料 电流检测信号是否正常
E-09 E-11	电机信号故障	电机定位信号故障	电机编码器接口是否接触良好
E-15	硬件过流	电流检测非正常 电机运转非正常	系统电流检测回路是否工作正常 硬件驱动器件是否工作正常
E-17	翻抬开关故障	翻抬开关有效	放下机头或者检查翻抬开关
E-18	软件过流	电机持续大电流运行	系统电流检测回路是否工作正常
E-19	电机超载	电机长时间超负荷运行	检查机头电机是否适配
E-20	参数读写故障	参数读出或者保存故障	操作盒插头是否接触良好 操作盒器件是否损坏
E-21	电流检测回路故障	电流检测异常	系统电流回路检测是否正常
E-22	OZ 回路故障	OZ 回路检测异常	检查 OZ 回路是否正常
E-23 E-24	电机转速异常	电机运转转速非正常	电机编码器接口是否接触良好 电机初始角是否异常



七、参数列表

参数项	中文说明	范围	初始值	内容值名称说明与备注
P-01	最高转速	200~3700	3700	车缝时的最高转速设定
P-02	停针位选择	0~2	1	0: 上停针; 1: 下停针; 2: 无定位
P-03	软启动开关	0~1	1	0: 关; 1: 开
P-04	软启动速度	200~1500	400	软启动速度
P-05	软启动针数	1~15	1	软启动针数
P-06	最低转速	200~500	200	车缝时的最低转速设定
P-07	上针位微调	-20~20	0	上针位调节
P-08	下针位调节	0~240	175	下针位调节
P-09	开机找上针位	0~1	0	0: 无效; 1: 开机找上针位
P-10	机头保护开关检测	0~2	1	0: 无效; 1: 检测零信号; 2: 检测正信号
P-11	加速曲线调整	0~4	1	控制器的加速爬升斜率设定
P-12	反转提针开关	0~1	0	0: 关; 1: 开
P-13	反转提针角度	0~45	20	反转提针角度
P-14	衣车灯亮度调节	0~100	100	衣车灯亮度调节
P-15	补针方式	0~3	3	0: 半针; 1: 一针; 2: 连续补半针; 3: 连续补一针
P-16	剪线功能开关	0~1	1	0: 关闭; 1: 开启;
P-17	剪线速度	100~400	280	剪线速度
P-18	计件倍率	0~20	0	0: 无计件功能 1-20: 每设定次剪线计件值加 1
P-19	计件初值设定	0~1000	100	计件减的初值
P-20	计件方向设定	0~1	0	0: 计件加; 1: 计件减
P-21	马达运转方向	0~1	1	0: 顺时针; 1: 逆时针
P-22	自动跑合速度	200~3700	3500	跑合速度的设置
P-23	自动跑合跑时间	1~250	20	自动跑合跑时间
P-24	自动跑合停时间	1~250	20	自动跑合停时间
P-25	A 项测试	0~1	0	速度持续运行
P-26	B 项测试	0~1	0	执行定位循环运行
P-30	机针位置调整	0~240	0	机针位置调整
P-33	过厚加力大小	0~15	0	过厚加力大小
P-34	剪线加力大小	0~15	0	剪线加力大小
P-35	剪线吸合角度	150~200	175	剪线吸合角度
P-36	剪线加力角度	200~300	260	剪线加力角度
P-37	剪线释放角度	300~360	346	剪线释放角度
P-40	机型选择	预留	预留	预留

GC200-D2 Integrated lockstitch with thread trimming


1.Safety precautions

Before use, please read this manual and lockstitch machine's manual at the same time, thanks for your cooperation.


- 1.1 (1) The voltage and working frequency: please according the name plate of motor and controlling box.
- (2) Electromagnetic interference: Please stay away from high-frequency magnetic wave machines or Radio wave transmitter etc. In order to prevent the generated electromagnetic waves from interfering with the drive device and causing wrong action.
- (3) Grounded: To prevent noise interference or leakage accidents, please do grounding works including sewing machine, motor and control box.
- 1.2 If Disassemble motor and controlling box, please Turn off the power in advance. Dangerous high voltage electricity in the electric control box, so please waiting more than 1 mins after Turn off the power, then to disassemble the control box
- 1.3 To ensure the safety of life, please turn off the power when repair the machine or threading needles.
- 1.4  This symbol indicates when the machine is installed, if made a mistake, the human body or the machine may be damaged, therefore, there will be this mark in the dangerous place of the machine.
-  This symbol indicates that there is high voltage, etc. Electrically dangerous places have this mark.
- 1.5 This products guarantees a one-year warranty under normal working conditions and no-one error operation.

2.Instructions


2.1 Reset

In the shutdown state, press  at the same time to turn on, then press the "S" key to confirm to recover

2.2 Monitoring mode

Long press the "S" to enter the monitoring state, press  to change the monitoring serial number, press the "S" to check.

2.3 Factory debugging mode

Long press the thread trimming key to enter the debugging mode, press  to choose debug item, press "S" to enter corresponding mode.

1-dJ Motor test mode, Press the trimming key to start the test, and the test result will be displayed after completion.

2-bJ Calibrate the handwheel position, turn the handwheel to the upper needle positioning position, and reconfirm the position after running.

2.4 Aging mode

Press and hold the P key and S key at the same time to turn on the motor, you can directly enter the P26 parameter, and choose to start aging.

2.5 Secondary parameter mode

Press the P key to turn on, and directly enter the secondary parameter mode, you can view the P21-P40 parameters.

Long press the P key, enter the password 111, you can also enter the secondary parameter mode.

2.6 Three-level parameter mode

Long press the P key, enter the password 824, enter the three-level parameter mode, you can check the P41-P60 parameters.








3、 Monitoring mode

Display No:	Item number	unit
JJ	Counting	Piece
SPd	Speed	RPM
CUr	Current	0. 1A
UdC	Voltage	V
PdL	Pedal	/

Display No:	Item number	unit
PoS	Angle	degree
dJ	Motor	/
id	Model	/
vEr	Version	/

Note: Long press the thread trimming button on the piece count display interface to reset the piece count.

4、 Key Description

Function parameter edit		Enter or exit the editing of function parameters
Parameter view save		View and save the content of the selected parameter number: After selecting the parameter number, press this key to view and modify the operation, after modifying the parameter value, press this key to exit and save the parameter
Up selection		1. Increment key for parameter item in parameter selection area 2. Set the value increment key in the parameter content area
Down Select		1. Decrease key of parameter item in parameter selection area 2. Set the value decreasing key in the parameter content area
Slow start		To setting open or cancel the slow start sewing function
Thread trimming		Set to use or cancel the thread trimming function.
Stop needle position selection		Switch the stop position of the needle after sewing (upper stop position/lower stop position)

5、 Electrical control



Definition	Signal (light)	Ground wire(Jog needle)	32V(Electromagnet)
Foot position	6PIN	5PIN	4PIN
Definition	5V(Sewing lights)	Signal (inching for add stitch)	Thread trimming (Electromagnet)
Foot position	3PIN	2PIN	1PIN

6、 Failure description

Error code	Fault content	Reason	Inspection items and how to fix
E-01	System voltage is too high	Actual voltage is too high Incorrect voltage detection	Whether the incoming line voltage of the system is too high Whether the system voltage detection circuit works normally
E-02	System voltage is too low	Actual voltage is low Incorrect voltage detection	Whether the incoming line voltage of the system is too low Whether the system voltage detection circuit works normally
E-05	Pedal ID failure	Pedal recognition failure	Loose pedal joint
E-07 E-08	Motor overload	Motor blocked, Motor overload	Whether the motor plug is in good contact Whether the machine head or trimming mechanism is stuck Whether to sew fabrics above the specification thickness Whether the current detection signal is normal
E-09 E-11	Motor signal failure	Motor positioning signal failure	Whether the motor encoder interface is in good contact
E-15	Hardware overcurrent	Current detection is abnormal The motor is running abnormally	Whether the system current detection circuit is working normally Whether the hardware drive device is working normally
E-17	Flip switch failure	Flip switch effective	Put down the machine head or check the flip switch
E-18	Software overcurrent	The motor continues to run with high current	Whether the system current detection circuit is working normally
E-19	Motor overload	Long-term overload operation of the motor	Check whether the head motor is suitable
E-20	Parameter reading and writing failure	Parameter read or save failure	Whether the control box plug is in good contact Whether the control box device is damaged
E-21	Current detection circuit failure	Current detection circuit failure	Whether the system current loop detection is normal
E-22	OZ loop failure	OZ loop detection abnormal	Check whether the OZ circuit is normal
E-23 E-24	Abnormal motor speed	The rotating speed of the motor is abnormal	Whether the motor encoder interface is in good contact Whether the initial angle of the motor is abnormal

7、 Parameter list

Parameter	Description	Range	Initial value	Content value name description and remarks
P-01	Maximum speed	200~3700	3700	Maximum speed setting during sewing
P-02	Synchronizer selection	0~2	1	"0" mean Needle up, "1" mean Needle down, "2" mean without signal
P-03	Soft start switch	0~1	1	"0" mean open, "1" mean turn off
P-04	Soft start Speed	200~1500	400	Soft start speed function setting
P-05	Number of soft start stitches	1~15	1	Number of soft start stitches
P-06	Minimum speed	200~500	200	Minimum speed setting during sewing
P-07	Upper needle position adjustment	-15~15	0	Upper needle position adjustment
P-08	Down needle position adjustment	0~240	175	Position adjustment of lower needle stop
P-09	Automatically find the needle position when starting up	0~1	0	"0" mean can't find upper needle position adjustment, "1" mean find upper needle position adjustment
P-10	Machine head protection switch detection	0~2	1	"0" mean no detection, "1" Detect zero signal, "2" mean Detect positive signal
P-11	Acceleration curve adjustment	0~4	1	Speed controller acceleration and climb slope setting
P-12	Reverse needle lift switch	0~1	0	"0" mean turn off, "1" mean open
P-13	Reverse the needle lifting angle	0~45	20	Reverse the needle lifting angle
P-14	Brightness adjustment of lights	0~100	100	Brightness adjustment of lights
P-15	Needle supplement method	0~3	3	"0" mean Half stitch, "1" mean One stitch, "2" mean Continuous half stitch, "3" Continuous one stitch
P-16	Thread trimming function switch	0~1	1	"0" mean turn off, "1" mean open
P-17	Thread trimming speed	100~400	280	Thread trimming speed
P-18	Piece magnification	0~20	0	0: No piece counting function 1-20: Add 1 to the piece count value for each set time of thread trimming
P-19	Initial piece count setting	0~1000	100	Initial value of piece count reduce
P-20	Piece counting direction setting	0~1	0	0: piece count plus; 1: piece count reduce
P-21	Motor running direction	0~1	1	"0" mean Clockwise, "1" mean Counterclockwise
P-22	Automatically running speed	200~3700	3500	Setting automatically check speed
P-23	Automatic running time	1~250	20	Automatic running-in time setting
P-24	Automatic stop time	1~250	20	Automatic running-in pause time setting
P-25	A item test	0~1	0	Speed continuous operation
P-26	B item test	0~1	0	Perform positioning cycle operation
P-30	Needle position adjustment	0~240	0	Needle position adjustment
P-33	The strength gained in thick material	0~15	0	The strength gained in thick material
P-34	The strength gained when thread trimming	0~15	0	The strength gained when thread trimming
P-35	Suction angle when thread trimming	150~200	175	Suction angle when thread trimming
P-36	The strength angle when thread trimming	200~300	260	The strength angle when thread trimming
P-37	Thread trimming release angle	300~360	346	Thread trimming release angle
P-40	Model selection	Reserved	Reserved	Reserved